Serial No.: 10/599,128

Filed: September 20, 2006

Page : 2 of 10

## Listing of Claims:

1. (Previously Presented) A permselective separation membrane which is characterized in that:

(a) the permselective separation membrane is made mainly of a polysulfone-based polymer and polyvinyl pyrrolidone;

wherein a ratio [D]/[C] between the polyvinyl pyrrolidone content [D] in the uppermost layer of a surface on non-blood contacting side and the polyvinyl pyrrolidone content [C] in the uppermost layer of a surface on blood contacting side is 1.1 or higher, wherein the polyvinyl pyrrolidone content [C] in the uppermost layer of a surface on the blood contacting side of the permselective separation membrane is from 20 to 40% by weight and wherein the polyvinyl pyrrolidone content [D] in the uppermost layer of a surface on non-blood contacting side of the permselective separation membrane is from 25 to 50% by weight;

- (b) when bovine blood at a temperature of 37°C having hematocrit value of 30% and containing 6 to 7 g/dl of total proteins and sodium citrate is flowed through a module comprising the permselective separation membrane at a flow rate of 200 ml/min. and a filtration rate of 20 ml/min.
- (i) a sieving coefficient of albumin [A] becomes not less than 0.01 and not more than 0.1 after 15 minutes; and
- (ii) a sieving coefficient of albumin [B] becomes not less than 0.005 and less than 0.04 after 2 hours.
- 2. (Original) The permselective separation membrane according to claim 1, wherein the sieving coefficient of albumin [B] after 2 hours is less than the sieving coefficient of albumin [A] after 15 minutes.
- 3. (Previously Presented) The permselective separation membrane according to claim 1, wherein the sieving coefficient of albumin [A] after 15 minutes and the sieving coefficient of albumin [B] after 2 hours satisfy a relation of [B]/[A] = 0.1 to 0.4.

Serial No.: 10/599,128

Filed: September 20, 2006

Page : 3 of 10

4. (Previously Presented) The permselective separation membrane according to claim 1, wherein clearance of  $\alpha$ 1-microglobulin is not less than 15 ml/min (1.0 m<sup>2</sup>).

- 5. (Previously Presented) The permselective separation membrane according to claim 1, wherein the amount of  $\alpha$ 1-microglobulin adsorbed is within a range from 2.0 to 20 mg/m<sup>2</sup>.
- 6. (Previously Presented) The permselective separation membrane according to claim 1, wherein a skin layer thickness of the permselective separation membrane is from 0.1 to  $1.2~\mu m$ .
- 7. (Previously Presented) The permselective separation membrane according to claim 1, wherein a membrane thickness of the permselective separation membrane is from 25 to  $45 \mu m$ .
- 8. (Previously Presented) The permselective separation membrane according to claim 1, wherein polyvinyl pyrrolidone is not substantially crosslinked.
  - 9. (Canceled)
- 10. (Previously Presented) The permselective separation membrane according to claim 1, wherein the polyvinyl pyrrolidone content in a layer near the surface on blood contacting side of the permselective separation membrane is from 5 to 20% by weight.
  - 11. (Canceled)
- 12. (Previously Presented) The permselective separation membrane according to claim 1, wherein an aperture ratio of the surface on blood contacting side of the permselective separation membrane is from 20 to 35%.

Serial No.: 10/599,128

Filed: September 20, 2006

Page : 4 of 10

13. (Previously Presented) The permselective separation membrane according to claim 1, wherein the permselective separation membrane is a hollow fiber membrane.

- 14. (Previously Presented) The permselective separation membrane according to claim 13, wherein a burst pressure of the hollow fiber membrane is 0.5 MPa or higher.
- 15. (Previously Presented) The permselective separation membrane according to claim 13, wherein thickness deviation of the hollow fiber membrane is 0.6 or more.

## 16. (Canceled)

17. (Withdrawn) A method for producing a permselective separation membrane wherein, when a membrane forming solution and an internal liquid are discharged from a tube-in-orifice type nozzle, pass an air gap and are solidified in a solidification bath,

the membrane forming solution is constituted from a polysulfone-based polymer, polyvinyl pyrrolidone and a solvent;

the ratio of polyvinyl pyrrolidone content to polysulfone-based polymer content is from 10 to 18% by weight;

the internal liquid is an aqueous solution containing 30 to 60% by weight of amide-based solvent; and

a liquid temperature of the internal liquid is set 30 to 60°C lower than the temperature of the membrane forming solution and the liquid temperature is from 0 to 40°C when discharged.

- 18. (Withdrawn) The method for producing a permselective separation membrane according to claim 17, wherein the tube-in-orifice type nozzle is an internal liquid thermal medium circulation type block.
- 19. (Withdrawn) The method for producing a permselective separation membrane according to claim 17, wherein the tube-in-orifice type nozzle has a ratio of the maximum nozzle slit width to the minimum width within a range from 1.00 to 1.11.

Serial No.: 10/599,128

Filed: September 20, 2006

Page : 5 of 10

20. (Withdrawn) The method for producing a permselective separation membrane according to claim 17, wherein the membrane forming solution is filtered by means of a filter having a mesh size of 25  $\mu$ m or smaller.

21. (Withdrawn) The method for producing a permselective separation membrane according to claim 17, wherein polyvinyl pyrrolidone having a hydrogen peroxide content of 300 ppm or lower is used as the raw material.